

MATERIAL SAFETY DATA SHEET

REC'D NOV 30 1987

I. PRODUCT IDENTIFICATION

TRADE NAME (as labeled): ZIP AEROSOL D-5604 Vapo Duster

CHEMICAL NAMES, COMMON NAMES: Methane, Dichlorodifluoro

MANUFACTURER'S NAME: Mitann, Inc.

DATE PREPARED: June 12, 1986

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II. HAZARDOUS INGREDIENTS

<u>CHEMICAL NAMES</u>	<u>CAS NUMBERS</u>	<u>EXPOSURE LIMITS IN AIR</u>		
		<u>ACGIH (TLV)</u>	<u>OSHA (PEL)</u>	<u>OTHER</u>
Methane, Dichlorodifluoro	75-71-8	1000 ppm	1000 ppm	

III. PHYSICAL PROPERTIES

VAPOR DENSITY (air=1): 4.9

SPECIFIC GRAVITY: 0.953-0.977

SOLUBILITY IN WATER: n/a

VAPOR PRESSURE, mmHg @ 77°F: 80 psig @ 77°F

EVAPORATION RATE (butyl acetate = 1): 0.1

APPEARANCE AND ODOR: Clear slight ethereal odor

MELTING POINT OR RANGE: n/a

BOILING POINT OR RANGE: -21.6 to 75°F

***** IV. FIRE AND EXPLOSION *****

FLASH POINT, F (give method): None - TOC

AUTOIGNITION TEMPERATURE, F: Not determined

FLAMMABLE LIMITS IN AIR, VOLUME %: LOWER Non-Flammable UPPER Non-Flammable

FIRE EXTINGUISHING MATERIALS:

_____ water spray, _____ carbon dioxide xx other; Non-Flammable
 _____ foam _____ dry chemical

SPECIAL FIREFIGHTING PROCEDURES: Self contained breathing apparatus (SCBA) may be required if containers rupture and contents are spilled under fire conditions.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Can explode if subjected to temperatures above 120 F. Can be decomposed by high temperatures (Flames, glowing surfaces, etc.) forming Hydrochloric and Hydrofluoric acids - possible Carbonyl Halides.

***** V. HEALTH HAZARD INFORMATION *****

SYMPTOMS OF OVEREXPOSURE for each potential route of exposure.

Inhaled: Vapor is heavier than air and can cause suffocation by reducing oxygen available for breathing. Breathing high concentrations may cause light-headedness, giddiness, shortness of breath, and may lead to narcosis, cardiac irregularities, unconsciousness or death.

Contact with skin or eyes: Not a corrosive or irritant after single contact; however, repeated liquid contact can cause defatting of the skin and/or frostbite. Liquid contact to the eye can cause discomfort, usually no extended effects.

Absorbed through skin: This material is poorly absorbed through the skin.

Swallowed: Although oral toxicity is low, ingestion of this product is to be avoided.

HEALTH EFFECTS OR RISKS FROM EXPOSURE

Acute: Same as Symptoms of Overexposure (see above)

Chronic: Based on animal studies and human experiences, this fluorocarbon poses no hazard to man relative to systemic toxicity, carcinogenicity, mutagenicity, or teratogenicity when occupational exposures are below its TLV⁰.

FIRST AID: EMERGENCY PROCEDURES:

Eye contact: Immediately flush with plenty of water for at least 15 minutes, treat for possible frostbite. Call a physician.

Skin contact: Flush with water. Treat for frostbite if necessary. Get medical attention if irritation is present.

Inhaled: Remove to fresh air, call a physician. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. DO NOT give epinephrine or similar drugs.

Swallowed: No specific intervention is indicated as the compound is not likely to be hazardous by ingestion. However, consult a physician if necessary. Do not induce vomiting as the hazard of aspirating the material into the lungs is a greater hazard than allowing it to progress through the intestinal tract.

SUSPECTED CANCER AGENT?

NO: This product's ingredients are not found in the lists below.

YES: Federal OSHA NTP IARC Cal/OSHA*

*Note: California employers using Cal/OSHA-regulated carcinogens must register with Cal/OSHA.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Cardiovascular disease: See Principal Hazards: Inhalation Section

RECOMMENDATIONS TO PHYSICIAN: Because of possible increased risk of eliciting cardiac dysrhythmias, catecholamine drugs such as epinephrine, should be considered only as a last resort in life threatening emergencies.

VI. REACTIVITY DATA

STABILITY: Stable Unstable

CONDITIONS TO AVOID: Open flames or high temperatures.

INCOMPATIBILITY (materials to avoid): Alkali or alkaline earth metals - powdered Al, Zn, Fe, etc.

HAZARDOUS DECOMPOSITION PRODUCTS (including combustion products): Hydrochloric and Hydrofluoric acids - possible Carbonyl Halides.

HAZARDOUS POLYMERIZATION: May occur will not occur

CONDITIONS TO AVOID: N/A

VII. SPILL, LEAK AND DISPOSAL PROCEDURES

SPILL RESPONSE PROCEDURES (include employee protection measures): Ventilate area, especially in low places where heavy vapors might collect. Remove open flames. Do not flush into sewers. Dike spill, collect on absorbent material and transfer to steel drums for recovery or disposal. Self-contained breathing apparatus (SCBA) is required if a large spill occurs.

PREPARING WASTES FOR DISPOSAL (container types, neutralization, etc.): Comply with federal, state and local regulations. Remove to a permitted waste disposal facility. EPA Hazardous Waste Nos. P001 and P002 may apply to waste materials.

NOTE: Dispose of all wastes in accordance with federal, state and local regulations.

VIII. SPECIAL HANDLING INFORMATION

VENTILATION AND ENGINEERING CONTROLS: Normal ventilation for standard manufacturing procedures is generally adequate. Local exhaust should be used when large amounts are released. Mechanical ventilation should be used in low places.

RESPIRATORY PROTECTION: Self-contained breathing apparatus (SCBA) is required if a large spill occurs.

EYE PROTECTION (type): Chemical splash goggles should be available for use as needed to prevent eye contact.

GLOVES (specify material): Nitrile gloves should be used to avoid prolonged or repeated exposure.

OTHER CLOTHING AND EQUIPMENT: n/a

WORK PRACTICES, HYGENIC PRACTICES: Under normal manufacturing conditions no respiratory protection is required when using this product.

OTHER HANDLING AND STORAGE REQUIREMENTS: Store in a clean dry area. Do not heat above 125° F.

PROTECTIVE MEASURES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow all procedures section VIII

IX. LABELING

LABELING (precautionary statements)* Use with adequate ventilation. Avoid prolonged or repeated breathing of vapor. Avoid prolonged or repeated contact with the skin. Do not take internally. Keep out of reach of children. Caution-Contents under pressure. Do not puncture or incinerate. Keep away from open flame. Store below 120° F. and out of sun's rays.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

*Not required. Space has been provided on this form for optional use.